

REMARKS

The application has been carefully reviewed in light of the Office Action dated February 5, 2004. Claims 1 and 8 have been amended. Claim 9 has been canceled. Claims 1-8 are pending in this case.

Claim 8 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Abramson et al. (U.S. Patent No. 6,131,135). Applicant respectfully traverses the rejection and requests reconsideration. Abramson discloses a Host Bridge 115, a BIU 140, a USB 150 and 155, a PCI bus 130, a memory 120, and an arbitration method between two USBs. A USB arbiter couples a first USB host controller and the second USB host controller to a bus. The arbiter arbitrates between grant request signals from the first and second USB host controllers.

Abramson fails to teach or suggest a serial bus in accordance with IEEE 1394. As such, Abramson fails to account for the distinct difference in access requirements between a USB and IEEE 1394 serial bus. One such difference is the access time required for data transfer using an IEEE 1394 serial bus. Accordingly, a problem when using an IEEE 1394 serial bus is that it can prevent access rights from being granted to other secondary side buses. This problem is not fully appreciated by Abramson. Abramson merely has a register that limits the time a host controller can spend on the bus as an initiator and fails to teach or suggest the requirements needed to arbitrate between buses that are not USB buses. See Column 3, lines 34-36. In addition, USB buses do not support the same devices used by an IEEE 1394 bus. Therefore, the rejection of claim 8 should be withdrawn.

Claims 1, 3 and 5 are rejected under 35 U.S.C. § 103 as being unpatentable over Abramson in view of Glover. Applicant traverses the rejection and respectfully requests reconsideration. Claim 1 recites an arbitration method of a bus bridge, which

interfaces “a primary-side bus with a plurality of secondary side buses.” Claim 1 also says that the bus bridge supports “a plurality of kinds of operations one of which is an operation related to a serial bus in accordance with IEEE 1394.” As noted in the Office Action, Abramson fails to teach or suggest an arbitration method in which the bus bridge supports a serial bus in accordance with IEEE 1394. In order to overcome this deficiency, the Office Action relies on Glover.

Glover refers to an integrated circuit for controlling the operation of a server hard disk and for processing digital data exchanged between a client and a storage media of the server hard disk drive. The circuit includes a data memory, a disk control circuitry, a write channel, a read channel, a servo unit, a motor control circuit and a digital signal processor. The Glover circuit is capable of interfacing with multiple buses, such as USB or IEEE 1394.

However, Glover fails to teach or suggest an arbitration method using a bus bridge that supports a serial bus in accordance with IEEE 1394 attempting to access the Host Bridge 115 (or vice versa), much less an arbitration method for managing a serial bus in accordance with IEEE 1394. Glover merely shows a hard disk drive integrated circuit having an IEEE 1394 interface. Although Glover may mention that an IEEE 1394 bus may be used to interface a hard disk drive integrated circuit, Glover as well as Abramson fail to suggest the invention of claim 1 because neither reference addresses the differences between a USB and an IEEE 1394 bus that are necessary for the arbitration method recited in claim 1. Thus, Abramson and Glover considered alone or in combination fail to teach or suggest claim 1.

Claim 3 depends from claim 1 and additionally recites *inter alia* maintaining the access right given to the serial bus in accordance with IEEE 1394 when an access demand is lodged from the secondary-side buses other than the serial bus in

accordance with IEEE 1394. Neither Abramson nor Glover teach or suggest such a limitation because neither reference addresses the differences between a USB and an IEEE 1394 bus. Claim 5 also depends from claim 1. Accordingly, claims 3 and 5 are allowable over the combination of Abramson and Glover at least for the reasons mentioned above with respect to claim 1 and on their own merits.

Claims 2 and 4 are rejected under 35 U.S.C. § 103 as being unpatentable over Abramson in view of Glover, and further in view of Tang. Applicant traverses the rejection and respectfully requests reconsideration. Claims 2 and 4 depend from claim 1 and should be allowable over Abramson and Glover at least for the reasons mentioned above with respect to claim 1.

Claims 6 and 7 are rejected under 35 U.S.C. § 103 as being unpatentable over Abramson in view of Glover, and further in view of Quackenbush. Applicant traverses the rejection and respectfully requests reconsideration. Claim 6 should be allowable over Abramson and Glover at least for reasons mentioned above with respect to claim 1. In addition, please note that Quackenbush merely discloses a single PCI local bus 22A coupled to a plurality of port controllers 26A-H and to a PCI bridge 38, and a round robin access scheme for accessing the single local PCI bus 22A when all of the port controllers 26A-H are the same type (column 4, lines 47-50).

Claim 7 recites an arbitration method having a bus bridge supporting a serial bus in accordance with IEEE 1394 and is therefore allowable over Abramson and Glover for the same reasons mentioned above with respect to claim 1. Quackenbush fails to teach or suggest a bus bridge supporting a serial bus in accordance with IEEE 1394. Thus, Abramson, Glover and Quackenbush considered alone or in combination fail to teach or suggest the limitations of claims 6 and 7. Accordingly, the rejection of claims 6 and 7 should be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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